

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

IN RE:	South Carolina Energy)	
	Freedom Act (House Bill)	
	3659) Proceeding Related to)	
	S.C. Code Ann. Section 58-)	DOCKET NO. 2019-226-E
	37-40 and Integrated)	
	Resource Plans for Dominion)	
	Energy South Carolina, Inc.)	

S.C. Coastal Conservation League & Southern Alliance for Clean Energy's Second Request for Production of Documents to Dominion Energy South Carolina, Inc.

Pursuant to S.C. Code Ann. Regs. 103-833 and the South Carolina Rules of Civil Procedure, the South Carolina Coastal Conservation League, the Southern Alliance for Clean Energy, and Upstate Forever, by and through its undersigned counsel, hereby request that Dominion Energy South Carolina, Inc. ("DESC") respond to this First Request for Production of Documents separately and fully, under oath, and in writing within twenty (20) days of the date of service hereof to the offices of Katherine Lee, Southern Environmental Law Center, 525 East Bay Street, Suite 200, Charleston, SC 29403 and electronically to klee@selcsc.org.

INSTRUCTIONS

IT IS HEREIN REQUESTED:

1. That all information shall be provided to the undersigned in the format as requested.

2. That all responses to the below Second Request for Production of Documents shall be labeled using the same numbers as used herein.

3. That any inquiries or communication relating to questions concerning clarifications of the data requested below be directed to the undersigned.

4. That each Request for Production of Documents be reproduced at the beginning of the response thereto.

5. That, in addition to the signature and verification at the close of DESC's responses, DESC's witness(es) responsible for the information contained in each response also be indicated.

6. That DESC provide the undersigned with responses to the Request for Production of Documents as soon as the responses are available to be produced but not later than twenty (20) days from the date of service hereof.

7. If the response to any Request for Production of Documents is that the information requested is not currently available, state when the information requested will become available.

8. These Requests for Production of Documents shall be deemed continuing so as to require DESC to supplement or amend its responses as any additional information becomes available up to and through the date of hearing.

9. If a privilege not to produce a document is claimed, identify each document as to which the privilege is claimed, the nature of the privilege, and the legal and factual basis for each such claim.

10. If a refusal to answer a Request for Production of Documents is based on the grounds that same would be unduly burdensome, identify the number and nature of

documents needed to be searched, the location of the documents, and the number of person hours and costs required to conduct the search.

11. Answer each Request for Production of Documents on the basis of the entire knowledge of DESC, including information in the possession of DESC, its officers, directors, consultants, representatives, agents, experts, and attorneys, if any.

12. If any Request for Production of Documents cannot be answered in full, answer to the extent possible and specify the reasons for DESC's inability to answer.

DEFINITIONS

1. The terms "DESC," "the Company," "You," and "Your" where used in these Interrogatories and Requests for Production of Documents refers to Dominion Energy South Carolina, Inc., together with its employees, agents, consultants, experts, subsidiaries, affiliates, and other operational or functional units and all officers, directors, owners, members, employees, agents and representatives of these entities. It also includes all other persons acting on behalf of Dominion Energy South Carolina, Inc..

2. "Document" and "documents" shall mean all written, recorded or graphic matters whatsoever and all non-identical copies thereof, including but not limited to papers, work papers, books, records, letters, photographs, correspondence, communications, electronic mail, telegrams, cables, telex messages, evidences of payment, checks, memoranda, notes, notations, work papers, transcripts, minutes, reports, recordings of telephone or other conversations, statements, summaries, opinions, studies, analyses, evaluations, contracts, agreements, jotting, agendas, bulletins, notices, announcements, advertisements, guidelines, charts, manuals, brochures, publications, schedules, price lists,

subscription lists, customer lists, journals, statistical reports, desk calendars, appointment books, diaries, lists, tabulations, newsletters, drafts, proofs, galleys, or other prepublication forms of materials, telephone lists or indexes, rolodexes, computer printouts, data processing program libraries, data processing input and outputs, microfilm, microfiches, CD ROMs, books of account, records or invoices reflecting business operations, all records kept by electronic, photographic or mechanical means, any notes or drafts relating to any of the foregoing, and any other documents as defined in Rule 34 of the South Carolina Rules of Procedure of any kind in your possession, custody or control or to which you have access or know to exist.

3. “Relate,” “relating,” “relating to,” and “related to” when used in these Interrogatories shall mean recording, summarizing, embodying, constituting, reflecting, digesting, referring to, commenting upon, describing, reporting, listing, analyzing, studying, or otherwise discussing in any way a subject matter identified in the interrogatory, and is defined so as to reach all matters within the scope of discovery pursuant to the Commission’s Regulations and the South Carolina Rules of Civil Procedure, including all information which, though inadmissible at trial, is reasonably calculated to lead to the discovery of admissible evidence.

4. “Identify” or “identity” used with reference to an individual means to state his or her full name, present or last known address, present or last known position and business affiliation, and employer, title, and position at the time in question. If the person was an officer, director, trustee, commissioner, or employee of DESC, also state the job title and areas of responsibility.

5. “Identify” or “identity” used with reference to a writing means to state the date, author, type of document (*e.g.*, letter, memorandum, telegram, chart, note, application, etc.) or other means of identification, and its present location or custodian. If any such document is no longer in DESC’s possession or subject to its control, state what disposition was made of it.

6. “Address” means home address, mailing address, school address, and business address.

7. Please construe “and” as well as “or” either disjunctively or conjunctively as necessary to bring within the scope of these Interrogatories any information which might otherwise be construed outside their scope.

SECOND REQUEST FOR PRODUCTION OF DOCUMENTS

Energy and Demand Forecasts

- 2-1: Please refer to the table on p.9 of the DESC 2020 Integrated Resource Plan (“DESC 2020 IRP”). Please provide, in Excel format, the economic, weather, demographic and other independent variables used to develop DESC’s load and peak demand forecasts.
- 2-2: Please provide a full copy of any independent analyses or reviews of the DESC 2020 IRP load forecast that have been conducted, including, but not limited to, any related to the settlement agreement with the Solar Business Alliance.
- 2-3: Please refer to the table on p.11 of the DESC 2020 IRP. Please provide the supporting workbooks, in Excel format and with all formulas and links intact,

used to develop the table titled "Annual Energy Forecast and Seasonal Peak Demand Change from Base Forecast for High and Low DSM."

- 2-4: Please confirm that the table on p. 11 presents high and low load growth scenarios – not High and "Load" (*sic*) DSM. Please identify the level of DSM associated with both scenarios as represented in the table.
- 2-5: Please provide annual load duration curves for the summer and winter periods as represented in the table on p. 9. If load duration curves are not available for each year of the forecast, please provide data for representative years from the start, middle and end of the forecast period.
- 2-6: Please provide, in Excel format, all model statistics for the load and peak demand forecasts output from the software used to develop the forecasts.
- 2-7: Please confirm if DESC made any post-estimation adjustments to its load or peak demand forecast. If post-estimations were made, please provide a spreadsheet showing the specific adjustments made.

Demand Side Management Programs and Impacts

- 2-8: Does the Medium DSM case modeled in the DESC 2020 IRP represents the "Current Programs" or the "Expanded Programs" scenario from the DESC 2020-2029 Achievable DSM Potential & PY10-14 Program Plan completed by ICF (2019 MPS)? If the Medium DSM case is not either of the two scenarios from the 2019 MPS, please explain the underlying assumptions and differences used to develop the Medium DSM Case.

- 2-9: Please confirm what level of DSM, expressed as a percentage of prior year retail electricity sales, is assumed under the DSM High Case modeled by DESC.
- 2-10: Please confirm whether DESC uses marginal or average line losses in the calculation of savings for Demand Side Management (“DSM,” defined here to include demand response and energy efficiency). Please provide the line loss number used in the calculation and supporting documentation for the use of that line loss number.
- 2-11: Please confirm whether DESC modeled net or gross DSM savings for the IRP modeling.
- 2-12: Page 19 of the DESC 2020 IRP states: “An additional new offering will include a rebate for replacing electric resistant heat with a heat pump.” What level of participation is anticipated by year?
- a. Please provide the estimated summer and winter peak impacts, and annual energy savings, along with supporting assumptions on baseline and new equipment efficiencies, measure life and measure costs.
- 2-13: Please refer to the discussion of the low, medium, and high DSM cases in paragraph one on p. 37 of the DESC 2020 IRP.
- a. Please provide in Excel format, with all formulas and links intact, the worksheets used to develop the DSM megawatt-hour (“MWH”) savings across the Medium, Low, and High DSM case.

- b. Please provide in Excel format, with all formulas and links intact, the worksheets used to develop the DSM megawatt (“MW”) winter peak savings across the Medium, Low, and High DSM case.
 - c. Please provide in Excel format, with all formulas and links intact, the worksheets used to develop the DSM megawatt (“MW”) summer peak savings across the Medium, Low, and High DSM case.
 - d. Please provide in Excel format, with all formulas and links intact, the worksheets used to develop the DSM costs across the Medium, Low, and High DSM case.
- 2-14: The most recent DSM rider proceeding indicates “At the close of Program Year 9, 438 large commercial and industrial accounts had opted-out of DESC's DSM programs. Retail electric sales associated with these accounts represent approximately 23% of DESC's retail electric load.” Please provide the annual number of opt out customers and share of retail sales they represent for the last five years.
- 2-15: Does the DSM portfolio include targeted strategies and resources to reduce the share of customers that opt-out? If so, please describe these, if there are not please explain.
- 2-16: Please refer to Table 12, titled ‘Forecasted MWH Savings as a Percentage of Previous Year Sales’, on p. 25 of the 2019 MPS.

- a. Please provide, in Excel format, the forecasted incremental and cumulative MWh energy savings for the Current and Expanded Program scenarios.
- 2-17: Please refer to Table 23 and 24 of the 2019 MPS. Please explain the rationale for projecting that residential DSM spending will peak in 2022 and then steadily decline through 2029.
- 2-18: Please provide a copy of the hourly load forecast data for 2019-2021 provided by DESC to ICF as referenced on page 42 of the 2019 MPS.
- 2-19: Please refer to Table 40, titled 'Summary of Programs Recommended for Implementation,' on p.53 of 2019 MPS.
 - a. Please provide, in Excel format with all formulas and links intact, the total (and to the degree available, hourly) MWh, and MW impacts and costs, associated with each program in the portfolio, for each program year.
- 2-20: Please refer to Appendix E: Program Assumptions, p. 129, from the 2019 MPS.
 - a. Please confirm whether the line loss of 15.21% is marginal or average.
- 2-21: Please provide, in Excel format, the assumptions used to develop the columns 'Eligible Customers' and 'Maximum Participation' for each measure in the Measure Level Data table.

Load Management and Demand Response

- 2-22: Are time of use rates currently available for residential and commercial electric space and water heating customers? If so, please provide details on the structure and differences in the rates. If there is not, what level of heat pump adoption is

expected to lead to development of a time of use rate that would advantage flexible load management?

- 2-23: Page 21 of the DESC 2020 IRP identifies seasonal rates. Please provide details on the details on the structure and differences between the on-peak and off-peak season hours and rates.
- 2-24: Please refer to p. 22 of the IRP and the discussion of existing load management. How much is included in the DESC 2020 IRP portfolios in future years? For example, does interruptible load remain 200 MW? Is there a distinction between summer and winter participation for interruptible load?
- 2-25: Please refer to the statement on p. 23 of the DESC 2020 IRP: “Program plans will be assessed as the installation of AMI meters reaches an appropriate level of saturation and can support cost-effective DR programs.”
- a. What level of saturation is anticipated to support expanded DR programs, and when will this be achieved based on implementation of Advanced Metering Infrastructure (“AMI”) deployment?
- 2-26: Please explain whether lack of AMI infrastructure remains as a constraint to cost effective Demand Response options identified in the 2019 MPS. If the lack of AMI continues to be a constraint, please explain why, and plans to overcome barrier. For example, is it assumed, that direct load control of water heaters or smart thermostats is limited to participation by customers with AMI?
- 2-27: Please refer to the 2019 MPS.

- a. Please provide, in Excel format with all formulas and links intact, the Demand Response MW savings and total program costs by year under the Current Programs Scenario and the Expanded Programs Scenario.

2-28: Please refer to Figure 25 titled 'Load Growth and Load Impact, by DR Program', p. 49, from the 2019 MPS.

- a. Please explain why there is no growth in the 'Reference Scenario DR Savings' from 2020 to 2029.
- b. Please explain why there are no savings from the 'Expanded Scenario' Demand Response until 2024.

Electric Vehicles

2-29: Page 15 of the DESC 2020 IRP states: For the three scenarios of 1%, 5% and 10%, it is assumed that the percent of Level 1 electric vehicle ("EV") charging is 80%, 50% and 20% respectively and the MW on-peak percentages are 50%, 30% and 20%.

- a. Please provide supporting documentation for these assumptions.
- b. What share of new vehicle sales in DESC territory would be EVs in 2025, 2030 and 2034 to be consistent with the IRP's total share assumptions of 1%, 5% and 10% by 2034?
- c. Is there a difference between the assumed on peak percentages for charging in winter and summer?

2-30: Page 15 of the DESC 2020 IRP states “It is assumed that with a higher saturation of EVs DESC will design a time of use rate that provides a more significant advantage to off-peak charging.”

- a. What level of EV saturation is anticipated to lead to development of a time of use rate that would advantage off-peak charging?

Coal Plants

2-31: Please refer to the Environmental Rules section on p. 34 to 36 of the DESC 2020 IRP.

- a. Please explain if DESC’s existing coal plants will be able to meet the requirements of the Environmental Protection Agency’s (“EPA”) Steam Electric Effluent Limitation Guidelines (“ELG”), flue gas desulphurization (“FGD”), and the Affordable Clean Energy (“ACE”) rules.
 - i. If the coal plants require upgrades to be compliant with the regulations, please provide, in Excel format with all formulas and links intact, the capital expenditures required for DESC’s existing coal plants to comply with the ELG, FGD, and ACE rules.
- b. Please provide, in Excel format with all formulas and links intact, the capital expenditures for each of DESC’s coal plants that were included in the modeling for the Integrated Resource Plan.

2-32: Please provide, in Excel format, the heat rate and capacity factors for all of DESC’s existing coal plants for the past 5 years.

Solar Energy Resources

- 2-33: Please refer to p. 31 of the DESC 2020 IRP. Please provide the workbooks, with all formulas and links intact, supporting the 3% summer and 0% winter capacity calculation for solar resources.
- 2-34: The DESC 2020 IRP indicates that new solar resources were modeled at a size of 100 MW or 400 MW and new battery energy storage at a size of 100 MW. Please explain whether DESC allowed the selection of partial units for new solar and battery energy resources in the modeling, i.e., could 50MW of solar and 50MW of battery energy storage be selected in the modeling?
- 2-35: In each year of the DESC 2020 IRP forecast, what is the number of systems, installed capacity (DC), and level of MW and MWh reductions are attributable to customer-based distributed generation, such as that provided by net metering?
- 2-36: Please refer to p.39 of the DESC 2020 IRP. Please explain why DESC did not consider solar paired with battery storage as a potential resource.

Resource Plans and Production Cost Modeling

- 2-37: Page 5 DESC 2020 IRP states: "Appendix A contains the results of five resource plans run by DESC using the DESCPROSYM production model but with inputs specifically defined by intervening third parties. Although the intervenor resource plans utilized many of the same data inputs, no direct comparisons to DESC's resource plans were included in this IRP due to the low resource cost information

provided by the third parties, which in DESC's view, results in a low portfolio cost bias and prevents a practical comparison."

- a. Please provide in Excel workbook format the inputs defined by intervening third parties. Specifically include all resource cost information defined by the intervening third parties along with any references for the numbers provided by the third parties.
- b. Please provide the assumptions regarding resource cost information that DESC used in developing its 2020 IRP, and the documentation for DESC's cost information.
- c. Please justify and provide supporting evidence for DESC's view that the numbers provided by the third parties result in a low portfolio cost bias and prevent a practical comparison.

2-38: Please refer to the PROSYM and revenue requirements modeling discussion on p. 41 of the DESC 2020 IRP.

- a. Please provide, in Excel format with all formulas and links intact, the revenue requirements model for all resource plans modeled by DESC.
- b. In in electronic, Excel format, please provide the PROSYM input and output files for all resource plans modeled by DESC.
- c. Please provide a copy of the PROSYM model manual.

2-39: Please refer to the following statement on page 43 of the DESC 2020 IRP: "RP2 is the lowest cost resource plan under the assumption of zero cost CO2 and base gas prices for all levels of DSM modeled. This is driven by the low cost of

building two 260 MW ICTs simultaneously several years into planning time frame.” Please clarify this statement with respect to the summary table on p. 50 showing that RP 2 has no new planned (non-solar) additions through 2034.

2-40: Please refer to Appendix A, p. A-1 of the DESC 2020 IRP.

- a. Please provide, in Excel format with all formulas and links intact, the revenue requirements outputs for all the intervenors’ resource plans modeled for consideration (including those not in the final) in the DESC 2020 IRP.
- b. In Excel format, please provide the PROSYM input and output files for all the intervenors’ resource plans modeled by DESC.

2-41: Please confirm whether DESC also modeled the intervenor resource plans with DESC’s own input assumptions for the costs of solar and battery storage and energy efficiency savings levels and costs. If DESC did run the intervenor resource plan with its own assumptions, please provide all the PROSYM and revenue requirement modeling files in Excel format.

IRP Modeling

2-42: Why did DESC choose to use a production costing rather than a capacity expansion model for the 2020 DESC IRP?

2-43: Why did Dominion use PLEXOS for its 2020 Virginia Integrated Resource Plan, but used PROSYM for the DESC 2020 IRP?

2-44: In future IRPs, does Dominion anticipate using a stakeholder process before filing its IRP? If not, why not? If so, what would that stakeholder process consist of?

May 26, 2020

Respectfully submitted,

s/Katherine Lee

Katherine Lee (SC Bar No. 104478)
SOUTHERN ENVIRONMENTAL LAW CENTER
525 East Bay Street, Suite 200
Charleston, SC 29403
Telephone: (843) 720-5270
Fax: (843) 720-5240
Email: klee@selcsc.org

*Counsel for South Carolina Coastal
Conservation League and the Southern
Alliance for Clean Energy*

STATE OF SOUTH CAROLINA
BEFORE THE PUBLIC SERVICE COMMISSION
DOCKET NO. 2019-226-E

In the Matter of:)
South Carolina Energy Freedom Act)
(House Bill 3659) Proceeding)
Related to S.C. Code Ann. Section)
58-37-40 and Integrated Resource)
Plans for Dominion Energy South)
Carolina, Incorporated)

CERTIFICATE OF SERVICE

I certify that the following persons have been served with one (1) copy of the Second Discovery Request for Production of Documents to Dominion Energy South Carolina, Inc. by electronic mail and/or U.S. First Class Mail at the addresses set forth below:

Andrew M. Bateman

Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201
Email: abateman@ors.sc.gov

Belton T. Zeigler

Womble Bond Dickinson (US) LLP
1221 Main Street, Suite 1600
Columbia, SC 29201
Email: belton.zeigler@wbd-us.com

Carri Grube Lybarker

SC Department of Consumer Affairs
Email: clybarker@scconsumer.gov

James Goldin

Nelson Mullins Riley & Scarborough LLP
1320 Main Street 17th Floor
Columbia, SC 29210
Email: jamey.goldin@nelsonmullins.com

Jeffrey M. Nelson

Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201
Email: jnelson@ors.sc.gov

Jeremy C. Hodges

Nelson Mullins Riley & Scarborough, LLP
1320 Main Street, 17th Floor
Columbia, SC 29201
Email: jeremy.hodges@nelsonmullins.com

K. Chad Burgess

Dominion Energy South Carolina, Inc.
220 Operation Way - MC C222
Cayce, SC 29033-3701
Email:

Matthew W. Gissendanner

Dominion Energy South Carolina, Inc.
220 Operation Way - MC C222
Cayce, SC 29033-3701
Email:

Kenneth.burgess@dominionenergy.com

matthew.gissendanner@dominionenergy.com

Nanette S. Edwards

Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201
Email: nedwards@ors.sc.gov

Richard L. Whitt

Whitt Law Firm, LLC
Post Office Box 362
401 Western Lane, Suite E
Irmo, SC 29063
Email: richard@rlwhitt.law

Robert Guild

Robert Guild - Attorney at Law
314 Pall Mall Street
Columbia, SC 29201
Email: bguild@mindspring.com

Weston Adams III

Nelson Mullins Riley & Scarborough, LLP
Post Office Box 11070
Columbia, SC 29211
Email: weston.adams@nelsonmullins.com

May 26, 2020

/s/ Emily E. Selden